



Scalecide

The
OUNCE OF
PREVENTION

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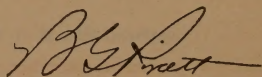
By
B. G. PRATT

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FOREWORD

THE author, who has been a manufacturer of spray material since the beginning of what is known as commercial spraying, has spent a lifetime in studying the problems of the fruit grower, not only theoretically, but practically as a commercial orchardist. He is actively engaged in the management of his own orchards aggregating over 30,000 trees. As a member of almost every horticultural society from Maine to Washington and from Michigan to the gulf he has had the pleasure of intimate contact with many of the best commercial growers throughout the country and experiment station thought and practice.

While there is much to learn, for the more we know the less we know we know, what has been learned is passed on for what it may be worth to you. The sincere hope of the author is that this booklet may be the means of helping some one to avoid mistakes commonly made and assisting another on the road to successful fruit growing.

A handwritten signature in dark ink, appearing to read "B. G. Knott", with a long horizontal flourish extending to the right.



SCALECIDE

The OUNCE of PREVENTION

HOW true it is in orchard work as it is in every day life, "An ounce of prevention is worth more than a pound of cure." And how simple is a small amount of Scalecide applied regularly each year, in comparison to the tons and tons of spray materials, fertilizer and honest sweat needed to bring an orchard back from the ravages of Scale, Pear Psylla, Aphis and the like.

One San Jose Scale may multiply to many million in a single season. The first brood of Aphis is not only destructive, but furthermore is often impossible to effectively control when protected by the curling leaves. One Fire Blight Canker may infect a whole orchard or a considerable area, and so on. The regular annual application of Scalecide prevents a host of insects and diseases from getting a start in your orchard that may otherwise cause serious damage.

Even though an orchard is so clean that it is entirely free from every insect pest whatsoever, the annual application of Scalecide is not made in vain, for the invigoration im-



SAN JOSE SCALE. There is no such thing as scale resistant to Scalecide. It will positively kill every scale it hits and because of its spreading nature many that it does not actually hit

parted to the trees by the action of the vegetable oils in Scalecide will more than pay for the material and labor spent. So do not allow your trees to go without this protection.

Our own experience as commercial orchardists has taught us that fruit growing contains more disappointments, more bitter hours, than any other form of farming, but its rewards are greater and in proportion as we profit by our mistakes and the mistakes of others so are we rewarded.

If your orchard is not in its best shape, start in with Scalecide, which can bring it back quicker than anything else as a spray material. If your orchard is in fine shape, do not for a moment allow it to "slip a little," but apply Scalecide regularly no matter what else you do. "An ounce of prevention, etc."

20 Years' Use of Scalecide

Scalecide has entered the twentieth year of its manufacture with a reputation of which it is rightfully proud. It came into being when the ravages of San Jose Scale were at

OYSTER SHELL SCALE.

As oyster shell scale consists of masses of eggs instead of live insects, some scale sprays do not affect it, but Scalecide covers each egg with a film of oil which prevents hatching



its height. From the first report of the late Professor John B. Smith of New Jersey, "There was not a single scale alive," down to the encouraging letters which we receive in the course of our daily business transactions, Scalecide is proud of its record.

For years it has been used in the largest peach orchards of the United States, owned by Mr. A. J. Evans, by the largest growers of apples in the United States, The American Fruit Growers, Inc., and by many other growers who are most particular about their trees.

The famous \$5,000 original Golden Delicious Tree, which is so precious that it is kept in a wire cage and under close supervision, is sprayed annually with Scalecide. Stark Bros., the owners of this tree, wrote us the other day as follows—"For a number of years the tree has been sprayed each year with Scalecide, is in clean, vigorous condition, bearing annual crops. This tree has borne as much as 35 bu. one crop." Who can tell what the next twenty years have in store for this complete dormant spray?

Results to Be Expected from the Use of Scalecide

Many growers, even those who have in years past used Scalecide once or twice, do not know or realize the work that this material actually has done or is doing for them. This is often due to the fact that growers have no time to run check plots and therefore have little by which to gauge their results.

Scalecide will control many insects or check the growth of a number of diseases as mentioned elsewhere in this book, but aside from this, have you ever noticed how the foliage in an orchard sprayed annually with Scalecide holds on later in the fall than usual? This allows more starches and sugars to be elaborated and the sap to be more concentrated, making the trees more resistant to winter injury and making the fruit-spurs plumper and more able to set fruit.

Have you ever noticed that an orchard of biennial bearing trees, such as Baldwins or York Imperials, sprayed annually with Scalecide has decided annual bearing tendencies? The fruit buds seem to be stimulated by the vegetable oils in Scalecide, giving them strength enough to form fruit when otherwise they would not.

Have you ever noticed, in a Scalecide sprayed orchard, places where dead bark is peeling off, leaving a new smooth bark underneath? This is the result of Scalecide invigorating the old bark into new growth

where the tree was hide bound. In the case of young trees this invigoration results in greater terminal growth and a faster maturing tree. South African Experiment Station reports 58% more fruit after spraying three years with Scalecide than with lime-sulfur.

If one can obtain such results as these with a dormant spray regularly applied, who can afford not to give his trees the advantage of this annual safeguard?

Penetration

Contrary to the conception of many, Scalecide is not a surface spray as are most common dormant sprays. When sprayed on the surface of the trees it does not remain there, but a part at least is absorbed and taken up by the plant. This penetration of Scalecide may account in a great measure for the invigorating effect on tree growth following regular annual applications of Scalecide as mentioned above and also may explain the cleaning up of Blight Cankers following the use of this material. This disease being an internal one is not affected by a surface spray, but a penetrating spray, with special properties such as Scalecide, only could have this effect.

Spreaders Not Necessary with Scalecide

Scalecide in itself is one of the best spreaders known. For years we have been pointing out the advisability of using a material like Scalecide for dormant spraying,



TERRAPIN SCALE.
Whether other remedies fail or not you can count on Scalecide to control terrapin scale. We know of no scale insect in any country of the globe that Scalecide has failed to control

which will creep into the cracks and crevices of the rough bark to reach places which would not otherwise be reached, and also spread out evenly on smooth bark, making it economical as well as effective.

To give an example of how the spreading powers of Scalecide work for economy,—it has been demonstrated many times that a gallon of dilute Scalecide will cover the same amount of tree surface, applied with equal thoroughness, as two or more gallons of dilute lime-sulfur. The saving is not only in the cost of the material, but in filling and hauling one half the number of spray-tanks full of material through the orchard. This is not so apparent in small orchards, but is a fact nevertheless. The larger the orchard the more apparent this saving becomes. In one of our own orchards 11,000 gallons of dilute Scalecide sprayed the same number of trees as 25,000 gallons of dilute lime-sulfur had the year previous.

We do not advise the use of Scalecide as a spreader for other materials. For our own use we prefer Kayso—a casein-lime spreader—with our summer sprays.

APHIS. Scalecide alone as a delayed dormant spray just as the buds are swelling and the aphids are hatching kills both the hatched and hatching eggs, and destroys the destructive first brood



Scalecide for Peaches

Some growers are afraid to use a miscible oil on their peaches, but there is absolutely no danger when Scalecide is used. We say this with a confidence based on 20 years' use of Scalecide on some of the largest and finest peach orchards in the country, as well as continuous use in our own orchards.

Mr. A. J. Evans of Fort Valley, Ga., has an orchard of 12,000 Elberta trees, 19 years of age, that have never had anything but Scalecide used on them as a dormant spray, and yet there are not 5% of the original trees missing. How often is this record duplicated by any other orchard or spray?

Spray Thoroughly

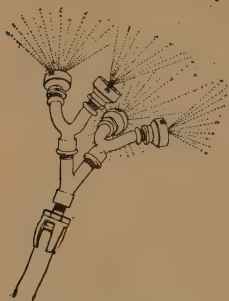
One of the chief causes of failure in fruit growing is economizing from necessity or otherwise, either not applying sufficient material or cutting out a spray.

Spray thoroughly or not at all. Fogging is better than drenching. Spray each tree until it drips. Spray part of your trees thoroughly rather than all of your trees partly.

Across the bottom of a late issue of "Illinois Horticulture" is printed in bold type "SPRAY THOROLY!" and we as manufacturers of spray material earnestly desiring to have our customers obtain the best possible results from the use of our materials cannot urge this point too strongly.

Nozzles

In our own orchards we prefer a cluster of four moderately fine nozzles, such as those shown in illustration on margin, rather than two coarse nozzles, or a spray gun. The spray gun cuts down labor and eases one's conscience, but it also cuts down efficiency and eases results. Some men can get good results with a spray gun, but you cannot hire them.



Four-nozzle cluster

They do not have to work for some one else, but have orchards of their own to spray.

Simplicity of Scalecide

The use of Scalecide is so simple that any one of average intelligence can use it properly and successfully. Simply stir 1 gallon of Scalecide in 15 gallons of water and spray while dormant any tree, shrub, bush or vine that drops its foliage in winter, provided the temperature is not colder than 40° Fahrenheit. Could anything be easier?

Furthermore, you don't have to wear slickers, goggles, or grease your hands and face, or blanket your horses when you use Scalecide. It is just like spraying your trees with rich milk. It does not burn the skin or take the hair off your horses unless you have left some arsenate of lead or lime-sulfur in your tanks from last summer's spraying, which you should not do no matter what you use.

When spraying with Scalecide you can look straight at your work without fear that the mist will injure your eyes. Your spray machine is actually working in oil. There is no sediment nor grit cutting the pumps and valves, for Scalecide makes a perfect solution with water and leaves no sediment, and really needs no agitation after it is mixed. You will find that your hired men will be pleased with the condition of the spray outfit during the Scalecide spraying. The shut-offs and cocks will work easily. The machine, instead of being covered with a white crust, is covered with a coating of oil, which keeps it in good condition and gives it a well-kept appearance. Inside the spray-tank there is no heavy sludge. Moreover, Scalecide can be used until the very last drop without clogging the nozzles.

Isn't it a shame to put a grinding, corroding substance in a nice spray-rig that has cost you hundreds of dollars, when you can get a more effective dormant spray that will not cut out your valves and eat up your fittings, and will make it last longer?



PEAR PSYLLA. Best control of pear psylla is obtained by spraying the adults with Scalecide in the fall or early spring while they are sluggish. After they have laid their eggs it is too late

While it is so easy to get results from Scalecide, there is always a better or best manner in which to go about it. We are briefly pointing out below some of the ways and manners in which to get the better and best results.

How to Mix for Use

1. Shake or stir the container before drawing off any Scalecide, bearing in mind that on long standing the heavier oils may settle to the bottom of the container and stick there.

2. Test Scalecide before using by stirring a teaspoonful in a glass of water. If it makes a milky, white solution without oil floating on top, it is all right to use no matter how long you have had it. If not, don't use it. Follow instructions below on "How to Mix Old Scalecide."

3. After seeing that your spray-tank is clean and free of arsenate of lead or lime-sulfur, fill it nearly full of water and add 1 gallon of Scalecide for each 15 gallons of water and stir, or let the Scalecide and water

CANKERS. *Many forms of fungous and even blight cankers heal up following regular dormant applications of Scalecide. See that your trees are so protected with Scalecide each year*



run through your strainer together as you are filling the tank.

4. When Scalecide is once mixed it stays mixed. Further agitation is useless, although harmless.

5. Don't pour water into Scalecide, but pour Scalecide into the water.

6. Never mix Scalecide for dormant spraying with anything but plain water.

How to Mix Old Scalecide

Scalecide, no matter how old it is, does not lose its strength nor efficiency. On standing for long periods (especially over the summer) it may separate and the heavier oils settle to the bottom of the container and must be very thoroughly stirred together before it will mix with water. So do not draw Scalecide from any container without thorough stirring, as neither the heavier oils nor lighter oils in Scalecide alone are effective for spraying. If the Scalecide makes a milky, white solution as mentioned above, it is thoroughly mixed.

SCALECIDE

Scalecide in metal cans, where no evaporation can take place, will keep indefinitely, needing only the stirring mentioned above. But Scalecide in barrels may lose a little water by evaporation or absorption of the wood, so if after thorough stirring and testing, you find that it does not make a milky, white solution without oil floating on top, draw a measured gallon into a clean, dry pail. Mix together ten tablespoonfuls of water and one tablespoonful of household ammonia. Stir one tablespoonful of this water and ammonia into the gallon of Scalecide and let it stand for a few minutes and test again. Repeat as often as necessary to make the gallon of Scalecide mix properly, but test each time that you add a tablespoonful of water and ammonia. Don't put in too much, as too much water is just as bad as not enough.

If it takes one tablespoonful to fix one gallon, it will require 3 cupfuls ($1\frac{1}{2}$ pints) to fix 50 gallons; if it takes 2 or 3 tablespoonfuls, it will require two or three times 3 cupfuls.

Don't throw away old Scalecide. If you cannot make it mix, we will replace it with new Scalecide, when delivered to our factory at Hackensack, N. J., transportation charges paid. If you wish new containers, allowance must be made for this, as we cannot use second-hand containers except for replacing Scalecide. If directions are followed, there is no need of replacing one can in a thousand.

If you have any difficulty with old Scalecide

or think it necessary to exchange it, take the matter up with your dealer or write B. G. Pratt Company, 50 Church Street, New York, mentioning the number found on each barrel or case. This refers to a sample of the identical material as yours which we always keep in our laboratory.

How Early to Use Scalecide

Spray any time in the fall after the leaves have fallen up until the weather gets too cold. Do not spray under any circumstances when the temperature is below 40° Fahrenheit. Scalecide should be applied in time to dry on the trees before the temperature gets down to freezing. The reason for this is that dilute Scalecide is composed of multitudes of tiny globules of oil in the water, many times smaller than is possible in any oil emulsion; in fact, so



As late as it is safe to spray

small as to require the highest powered microscope to see them. In this state it can be absorbed and taken up by the tree, but when the diluted Scalecide freezes the water is frozen out, allowing the oil globules to come together and form large ones. Large globules might clog the cells and injure the trees. This is the only reason for caution in using oil sprays. For this same reason avoid using improperly made miscible oils and emulsions.

Scalecide has been manufactured and sold continuously for the past 20 years and we



INVIGORATION. Tree invigoration is a "plus" value which you receive from Scalecide, as evidenced by larger and darker foliage, increased terminal growth and plumper fruit spurs on trees sprayed annually with Scalecide

know that you cannot cause injury without disregarding the simple directions on each package and such as are enumerated on page 12. Even then every disregard of directions does not mean an injury and never is injury possible without disregarding directions.

How Late to Use Scalecide— Delayed Dormant Spray

In general you can spray with Scalecide as late in the spring as you can any spray at dormant strength. Delayed dormant spray means the application of the Scalecide after the buds have started to swell (see illustration on page 9) and before the leaf-buds have come out more than one-quarter to one-half inch. (See illustration on page 15.) At this time of the year Aphis, as well as a number of other insects, are easiest to control.

Be careful, however, if you have a great deal of spraying to do with one machine, that you do not wait too long and the buds open so rapidly that you are unable to complete the spraying. Heavy rains, a broken-down machine, or any one of a number of other minor causes may delay you. Another

LEAF ROLLER. This insect lives over the winter in the form of egg masses on the larger branches of the trees. Scalecide applied as a delayed dormant spray will prevent the eggs from hatching



point—do not wait until the last minute to order your Scalecide, but have it on hand to take advantage of the first good weather and the opening of the buds.

Scalecide can be shipped in any kind of cold weather; it will not freeze nor can it be injured in any way by winter shipping.

Our Guarantee

We guarantee that, if you will divide an orchard, your worst or best, in two parts equal in general condition, and for three years spray one part with SCALECIDE according to our directions and the other part with lime-sulfur, giving the same summer treatment to both parts, the part sprayed with SCALECIDE will be better than the part sprayed with lime-sulfur—in the judgment of three disinterested fruit growers—or we will refund the money you have paid for the SCALECIDE.

B. G. PRATT CO.

We have published the above guarantee many millions of times in our literature and advertising during the past 8 years and have never had a single grower to request his money. Is this not a truly remarkable record even for a truly remarkable spray?

Spray Calendar for Fruits— Both Winter and Summer Treatment

As fruit growers, as well as manufacturers of spray materials, we have for some time past published a yearly spray calendar for fruits based on what we have found to be the best practice. Our experience as commercial orchardists for many years has given us a deep insight into the problems of our fellow fruit growers and, as manufacturers, our touch with fruit growers all over the country has given us exceptional opportunities to study this question from all its angles.

Our spray calendar may not be perfect, it may not be even theoretically near perfection, but by following this practice we have found that we obtained the best fruit (one year actually 95% A grade in a 10,000 barrel crop) with the least expenditure of time and money. And many of our friends and customers who have followed this program for years report as good and even better results. We offer it as a practical suggestion for your guidance.

Every spray is applied for some definite purpose. Make the application thoroughly and at the right time. A few days' delay may mean the difference between success and failure.

If you are unable to obtain any of the materials mentioned herein, write to us and we will either supply you with them or tell you where they can best be obtained.

Spraying of Apples

FIRST. Dormant and delayed dormant. Spray thoroughly in the fall (or if Aphis or Leaf Roller are feared make a delayed dormant spring application) using 1 gallon of Scalecide to each 15 gallons of water (3 to 50). Either the fall or spring application will have its effect on Scale and Cankers and will invigorate the trees. There is no danger in making both fall and spring applications should occasion warrant.

SECOND. Cluster-bud or Pre-pink Spray. Just as the cluster-buds form and before they begin to show pink, spray with Sulfocide, 1 part to 200 parts of water, to which 2 lbs. Kayso or 3 lbs. soap are added.

THIRD. Pink or Pre-blossom Spray. Repeat the above spray when the cluster-buds show pink and before the blossoms open. Or, if you have Red Bug or a late hatching of Aphis, add 2 gallons of Scalecide to the 200 gallons of dilute Sulfocide without soap, Kayso or Cal-Arsenate. This acts as a contact insecticide in addition to the same fungicidal action as Sulfocide alone. It has also proven effective in killing newly hatched Leaf Roller.

These two sprayings are most important for the scab control, especially if the orchards are in sod. If Canker Worm or Tent Caterpillar are abundant, use Sulfocide, 1 gallon; Kayso, 2 lbs., and Cal-Arsenate, 3 lbs. to a 200 gallon spray-tank. But do not use Cal-Arsenate in combination when Scalecide is used in the "pink" spray.



ROOT TREATMENT. For root rot and root blight on the roots draw the earth away from the base of the sickly trees and saturate the ground with dilute Scalecide (1-15). Do this in the spring or summer season

If you make a delayed dormant spray, the first and second summer sprays will come so close together that it means almost continual spraying from the time the leaf-buds begin to swell until the blossoms open, and then you only have about ten days' rest before the calyx or fourth spray, but it pays.

FOURTH. Calyx, Petal or Codling Moth Spray. This is the first spray for protection against wormy fruit and should never be omitted. Spray just as the petals drop, but if the orchard is large, it is probably best to commence before the petals are off, or when the bees leave the blossoms. This will insure getting over the orchard before it is too late. Ten days after the petals fall is about the limit for effectiveness. Spray with Sulfocide, 1 gallon to 200 gallons of water, and add 2 lbs. Kayso and 3 lbs. Cal-Arsenate. Spray thoroughly but lightly, directing your nozzles into the open calyces of the fruit. Late developments indicate that a fog is as effective as a coarse driving spray.

FIFTH. For Delayed Brood of Codling Moth and Late Infection of Scab. Repeat this

WOOLLY APHIS ON ROOTS. *Woolly aphis at the roots weaken a tree and often spread disease that rots the roots. When spraying wet base of trees thoroughly with Scalecide or in bad case, follow directions for root treatment*



spraying—Sulfocide, Kayso and Cal-Arsenate—ten days after the calyx spray. It may be omitted but it is safest not to do so.

SIXTH. As a Protection Against Leaf Diseases and Second Brood of Codling Moth. Three or four weeks after the last spray, or five or six weeks after the petal spray, use Sulfocide, 1 to 200; Kayso, 2 lbs., and Cal-Arsenate, 3 lbs.

SEVENTH. As a General Protection Against a Late Infection of Chewing Insects and Fungous Troubles. Spray with Sulfocide, Kayso and Cal-Arsenate about the latter part of July or first of August. This is often important even on summer varieties that have already been picked. It is a protection to your leaves and fruit-spurs for next season's crop.

Some of these sprays can always be omitted if you only knew which ones, but the omission of one spray may spoil all of your good work, either before or after, and those who raise strictly high-grade fruit use a full spray program, even putting on a later spray

than this. The first and fourth are the most important.

Spraying of Pears

Follow the same general program as for apples, but apply the Scalecide spray in the fall to control the Pear Psylla while they are most sluggish. The object of all summer spraying is preventive, so that the best results are always obtained where the foliage and fruit are kept covered with both fungicide and poison throughout the growing season.

Spraying of Quinces

Follow the same general directions as for apples and pears.

Spraying of Peaches and Apricots

Peaches are very susceptible to San Jose Scale, Terrapin or Lecanium Scale, also Leaf-Curl and Brown Rot Fungus.

FIRST. Dormant. Spray in the fall after the leaves are off with 1 gallon Scalecide to 15 gallons water.

Pull the earth from around the peach trees the same as for "worming," then apply the dormant spray Scalecide, 1 gallon to 15 gallons of water. Spray thoroughly from the topmost twig down to the bottom of the cavity. We have followed this practice for 2 years on 14,000 peach trees one to three years of age and it has eliminated any necessity for worming—not one tree in 200 having a borer.

Recent reports indicate that if a dormant spray is deferred until the buds begin to

swell, it is too late to control leaf-curl. Some users of Sulfocide, however, seem to think that Sulfocide holds the leaf-curl in check even after the leaf-curl starts out. We have never had leaf-curl in our own orchard sprayed annually with Scalecide and Sulfocide.

SECOND. Just as the buds swell and before the blossoms open, spray with 1 gallon of Sulfocide to 200 gallons of water, to which add 2 lbs. Kayso or 3 lbs. soap. This is a protection against leaf-curl and brown rot. It insures a better setting of fruit. The failure of a crop is sometimes attributed to frost or too much rain, when as a matter of fact it is brown rot attacking the blossoms, preventing the peaches from setting.

THIRD. Just as the shucks are falling from the newly formed fruit, spray with arsenate of lead, 3 lbs. to 200 gallons, to which 2 lbs. Kayso are added, or 5 to 10 lbs. hydrated lime or milk of lime.

See that the arsenate of lead is washed out of your tank before using Sulfocide again.

FOURTH. Two weeks later, spray with Sulfocide, 1 gallon to 200 gallons of water and 2 lbs. Kayso.

FIFTH. Ten days or two weeks after the fourth spray, use arsenate of lead, 3 lbs. to 200 gallons of water and 2 lbs. Kayso.

Additional sprays may be made as often as desired with Sulfocide and soap up to the time that your peaches are picked. It will check further progress of brown rot even



PEAR THRIPS. *Pear thrips often, unnoticed, suck the vitality of the tender buds, reducing or even destroying the fruit crop. Scalecide applied as a delayed dormant spray has proven a very effective control*

after it is started in the orchard. The spraying of peaches just before picking will increase the shipping and keeping qualities. It leaves no mark on the fruit.

General Information on Spraying of Peaches

Always spray with Sulfocide before your blossoms open. After the shucks begin to fall from the newly formed fruit, you may spray as directed above with arsenate of lead and Kayso, or you may use your ordinary spray of self-boiled lime-sulfur and arsenate of lead; or you may use Sulfocide and Kayso, as directed, and as soon as the Sulfocide is dry, make a second spraying with arsenate of lead and Kayso. There is no danger of burning if the Sulfocide is allowed to dry before making the application of arsenate of lead. When spraying with Sulfocide shortly after an application of arsenate of lead, select a clear, dry day when the Sulfocide will dry quickly.

When Sulfocide and soap is sprayed on peaches, plums or cherries, it leaves no marking and you cannot tell sprayed from

EUROPEAN RED MITE.

This insect does considerable damage to both apples and peaches. It lives over the winter in the form of eggs on the branches. Apply Scalecide as a delayed dormant spray as for aphids



unsprayed fruit, so it does not injure its marketing value, but increases its keeping qualities. And as there is nothing left but sulfur and a little carbonate of soda, it is non-poisonous and non-injurious.

Spraying of Cherries and Plums

FIRST. While some cherries are not susceptible to scale insects, they are susceptible to bacterial shot hole, leaf spot and brown rot that to some extent pass the winter in the form of cankers on the trees. A dormant spray with Scalecide cleans up more forms of canker than anything else we know of, and invigorates the trees. We therefore advise it. Spray with Scalecide, 1 to 15, in the fall or spring. While we have no direct evidence of the control of the canker of the bacterial shot hole, other bacterial cankers on apples and pears that heretofore were not considered controllable by spraying heal up following its application.

One cherry grower remarked that since spraying with Scalecide he had cherries every year while his neighbors did not, and so long as he did, he would continue to use Scale-

cide. So we always advise a spraying with Scalecide before the buds begin to swell.

Spray thoroughly down to and around the base of the trees, allowing the material to soak in. This has a tendency to check the progress of the black cherry aphid.

SECOND. As soon as the buds swell and just before the blossoms open, spray with Sulfocide, 1 gallon to 200 gallons of water with 2 lbs. Kayso or 3 lbs. soap. This will help to control brown rot and insure a better setting of fruit.

THIRD. Just as the shucks are falling from the newly formed fruit, spray with arsenate of lead, 3 lbs. to 200 gallons of water and 2 lbs. Kayso. See that your spray-tank is free from arsenate of lead before using Sulfocide again.

FOURTH. Ten days later spray with Sulfocide, 1 gallon to 200 gallons of water and 2 lbs. Kayso.

LATER SPRAYS will depend on weather conditions. Spray as often as you please with Sulfocide, 1 to 200, and 3 lbs. soap added. This can be used up to picking time or even when the cherries are fully ripe, and will protect from brown rot and increase the keeping and marketing qualities of the fruit. It leaves no marking, is finer than sulfur dust, tasteless and non-poisonous.

AFTER PICKING one or two sprayings will protect the leaves and keep them from falling prematurely, strengthen the fruit-buds for next year, and insure more regular crops.

Spraying of Grapes

It has been stated in the past that bordeaux mixture was the only spray for grapes, but during the past fifteen years we have used Sulfocide exclusively, because of better control of fungous troubles, in spite of the fact that there is some little tendency to burn the tendrils during very hot weather. It stops rot even up to the time of picking without spoiling the appearance or market value of the fruit and protects it from decay.

We have had ordinary varieties, such as Niagara, Delaware and Concord, that were dipped in Sulfocide after picking, to dry up to raisins without rotting.

It is important for best results to burn prunings and plow under fallen leaves early.

FIRST. Dormant spraying of grape vines is not usually practiced, but a spraying with Scalecide, 1 gallon to 15 gallons of water, before the new growth starts in the spring, will clean up the eggs and larvæ of some insects wintering on the vines, as well as the spores of fungous troubles, and seems to increase the fruitfulness of the vines.

SECOND. When the new shoots are six to eight inches long, spray with Sulfocide, 1 gallon to 200 gallons of water, with 2 lbs. Kayso or 3 lbs. soap added.

THIRD. Repeat this spraying after the fruit has set.

LATER SPRAYS. Use same spray as often as necessary up to the time that the fruit is ripe. If chewing insects attack the foliage or

fruit, add Cal-Arsenate to the Sulfocide and Kayso, 3 lbs. to 200 gallons.

If leaf-hoppers or aphids make their appearance, add nicotine sulphate, using 2 pints to 200 gallons of either Sulfocide and soap or Sulfocide and Kayso.

Spraying of Currants and Gooseberries

Scale insects often do much damage to currants and gooseberries. Scalecide, 1 to 15, should be applied very thoroughly in the early spring just as or before the new growth starts and the old wood pruned out, wetting thoroughly the ground as well as the bushes. Old patches can often be brought back to years of profitable bearing by this practice.

For mildew and rust. Spray as often as necessary with Sulfocide, 1 gallon; Kayso, 2 lbs. or soap 3 lbs. to 200 gallons of water.

Watch for the first appearance of the currant worm and spray with Sulfocide, 1 gallon; Kayso, 2 lbs. to which 3 lbs. Cal-Arsenate are added.

Spraying of Blackberries and Raspberries

Blackberries and raspberries should be sprayed while dormant or just as the leaf-buds start with Scalecide, 1 to 15. Spray thoroughly not only wetting the vines, but the clumps and the ground around them.

When new growth starts, spray two or three times, about 10 days apart, using Sulfocide, 1 to 200, with 2 lbs. Kayso or 3 lbs. soap added.

PROPORTIONS

Be as accurate as you can

Whenever we say spray with SCALECIDE, without giving proportions, it *always* means 1 to 15.

- 3 gallons to 50 gallons water
- 3 cupfuls ($1\frac{1}{2}$ pints) to 3 gallons water
- 1 cup or ordinary water glass (8 oz.) to one gallon water

Whenever we say SULFOCIDE and do not give proportions, it *always* means 1 to 200.

- 1 quart to 50 gallons of water
- 1 cupful (8 oz.) to 12 gallons of water
- 2 oz. to 3 gallons of water
- 1 tablespoonful to 3 quarts of water

When we say to add SOAP to Sulfocide, it *always* means any ordinary laundry or liquid soap dissolved in hot water.

- 1 lb. to 50 gallons of spray
- 1 oz. of soap to 3 gallons of spray

If you get more or less soap in, it makes little difference. The soap makes the material spread instead of standing in dewdrops on a leaf.

Nicotine Sulphate or Black Leaf 40;

- $\frac{1}{2}$ lb. to 50 gallons of spray mixture
- 1 teaspoonful to 1 gallon of spray mixture

Cal-Arsenate;

- 1 lb. to 50 gallons spray
- 1 heaping teaspoonful to 1 gallon spray

Kayso;

- 2 lbs. to 200 gallons spray
- 2 to 3 heaping tablespoonfuls to 10 gallons spray

A little more or less makes little difference. Kayso is used as a spreader only.

PRICES

SCALECIDE

F.O.B. Hackensack, N. J.

	Shipping Weight	
50-gal. bbls.	458 lbs.	\$36.50
30-gal. bbls.	290 "	24.50
2 5-gal. cans, in case.....	100 "	9.45
1 5-gal. can, in case.....	50 "	5.10
1 gal. can	11 "	1.40
1 qt. can	3 "	.60

SCALECIDE

Freight Paid Prices

To any Railroad Station in the United States, east of the Mississippi River, except Florida. Quarts and gallons shipped by parcel post or express only.

50-gal. bbls.	\$38.00
30-gal. bbls.	26.00
2 5-gal. cans, in case.....	10.60
1 5-gal. can, in case.....	6.25
1 gal. can	1.75
1 qt. can	.75

SULFOCIDE

On orders of 10 gallons or over, we agree to prepay the freight in the territory mentioned above.

	Shipping Weight	
50-gal. bbls.	650 lbs.	\$60.00
30-gal. bbls.	400 "	39.00
2 5-gal. cans, in case.....	150 "	15.00
1 5-gal. can, in case.....	70 "	8.75
1 gal. can	15 "	2.25
1 quart can	4 "	.75
1 pint can	3 "	.50



SCALECIDE

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THE COMPLETE DORMANT SPRAY

B. G. PRATT
CO.

"Makes a Tree Outgrow Its Troubles"

B. G. Pratt Company

50 CHURCH STREET

New York City